

**IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF
TEXAS WACO DIVISION**

**Sable Networks, Inc. and
Sable IP, LLC,**

Plaintiffs,

v.

Cloudflare, Inc.,

Defendant.

**Civil Action No.
6:21-cv-00261-ADA**

JURY TRIAL DEMANDED

**CLOUDFLARE, INC'S MOTION FOR SUMMARY JUDGMENT OF INVALIDITY
OF U.S. PATENT NO. 6,954,431 FOR LACK OF WRITTEN DESCRIPTION**

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Pursuant to Fed. R. Civ. P. 56, Cloudflare, Inc. (“Cloudflare”) respectfully moves for summary judgment that U.S. Patent No. 6,954,431 (the “’431” patent) be found invalid for failure to comply with the written description requirement.

INTRODUCTION

The ’431 patent is invalid for lack of written description. The ’431 patent presents a somewhat unique situation: claims written to the wrong specification. The claims at issue require (at a high level) the usage of a buffer for “damping jitter” by determining a capacity of a buffer, assigning a threshold value for the capacity of the buffer, and delegating a portion of the network’s bandwidth to the microflow in the buffer. But the ’431 patent specification is devoid of any description of this invention. Buffers and jitter are only mentioned in passing, and the specification never connects either of them to an actual system or method. In fact, the language of the claims departs dramatically from the specification, to the extent that more than a dozen key claim terms never appear in the specification.

The evidence will show that not only is the ’431 patent specification deficient for failing to disclose the claimed inventions, but also *the different specification on which the claims should have been drafted*. Sable’s predecessor-in-interest filed an application almost simultaneously with the ’431 patent application that added the material missing from the ’431 patent specification—figures and text teaching use of “buffers” and other subject matter more closely paralleling the ’431 patent’s claims. This is fatal to the ’431 patent as the law requires evidence in *the ’431 patent specification* of the inventor’s possession of the claimed inventions—extrinsic evidence cannot save the patent. As a result, the ’431 patent fails to meet the written description requirement of 35 U.S.C. § 112 ¶ 1.

BACKGROUND

Plaintiffs Sable Networks, Inc. and Sable IP, LLC (collectively, “Sable”) assert four patents against Cloudflare, which include the ’431 patent (the subject of this motion) (Ex. 1¹) and U.S. Patent No. 7,012,919 (the “’919” patent) (Ex. 2). Complaint, ECF no. 1.

A. The ’431 Patent

The ’431 patent is entitled “Micro-Flow Management.” The ’431 patent issued from Application No. 10/006,054 (the “’054” application) filed on December 6, 2001. The ’054 application was a division of Application No. 09/552,278 (the “’278” application) filed April 19, 2000. The ’431 patent therefore shares the same specification disclosure as the earlier-filed ’278 application and seeks the benefit of the ’278 application’s filing date, April 19, 2000 (more than a year and a half before the ’054 application was filed).

The ’431 patent has three independent claims, namely claims 1,² 10, and 19, from which every other claim in the patent depends. Claims 1 and 10 are identical, except that claim 10 adds the phrase “means for” four times. These claims recite:

1. A method for managing data traffic through a network, the data traffic comprised of a plurality of microflows, the method comprising:

[means for] determining a capacity of a buffer containing a microflow based on a characteristic;

[means for] assigning an acceptable threshold value for the capacity of the buffer over a predetermined period of time;

[means for] delegating a portion of available bandwidth in the network to the microflow; and

[means for] using the buffer for damping jitter associated with the microflow.

¹ All numbered exhibits hereto are attached to the Declaration of C. Luke Nelson.

² Claim 1 has been disclaimed, but is the basis for dependent claim 8, which is asserted.

'431 patent at claims 1; 10 (language in brackets is in claim 10 only).

Independent claim 19 recites:

In a network management system for controlling data traffic through a network, the data traffic comprised of a plurality of microflows, a microflow classification structure to determine data traffic type comprising:

- a packet discard time substructure configured to provide a time value to ensure buffer capacity for a microflow;
- a weighting factor substructure configured to partition available bandwidth among the plurality of microflows to be transmitted through the network; and
- a delay variation substructure configured to provide a buffer value to dampen jitter in a transmission of the microflow.

'431 patent claim 19.

On September 2, 2021, Sable formally disclaimed claims 1-7 and 9 of the '431 patent.

Ex. 3. Every surviving claim of the '431 patent is asserted against Cloudflare by Sable and subject to this motion.

B. The '431 Specification is Directed to Different Inventions than those Claimed

The '431 patent specification is not directed to the inventions found in claims 1, 10, and 19 of the '431 patent. Instead, the '431 patent's "Summary of the Present Invention" and detailed description of preferred embodiments describe a network of switches and a "flow block table within each switch" that stores "a set of quantified QoS descriptors . . . that is specific to a unique micro-flow." *E.g.*, '431 patent at 5:40-63. Yet, the '431 patent never claims any "flow block" or "flow block table" or "switch" anywhere in any of the claims. The claims of the '431 patent are written in a vocabulary quite distinct from the specification, such that more than a dozen key claim terms simply never appear in the '431 patent specification.³ Nothing in any of the figures or

³ For example, the specification never recites: "damping" (claims 1, 10); "dampen" (19); "threshold" or "threshold value" (1, 10); "capacity of the buffer" (1, 10); "buffer capacity" (19); "buffer

specification text disclose claim 1 and 10's determining, assigning, delegating, and damping jitter invention or claim 19's microflow classification structure configured to accomplish the same thing. Min dec. ¶¶ 51-57. On the whole, it appears quite likely that the '431 patent's claims were simply written based on the wrong specification.

C. The Different Disclosure in the '919 Patent vs. the '431 Patent

The '919 patent's specification confirms the likely mistake in prosecution when compared to the claims of the '431 patent. The '919 patent (also asserted by Sable in this action) issued from application no. 09/733,783 (the "'783" application) filed December 8, 2001—*i.e.*, filed just two days after the '054 application (that issued as the '431 patent). The '783 application was a continuation-*in-part* of the '278 application (the parent application to the '431 patent), as the '783 application added new, additional matter to the disclosure. This additional disclosure was not present in in the '278 application, or in the '054 application that issued as the '431 patent.

As discussed further below, some of the content added in the '783 application (resulting in issuance of the '919 patent) closely parallels the claims of the '431 patent, but is only present in the '919 patent specification. This discrepancy both emphasizes and potentially explains the lack of written description support in the '431 patent specification for the '431 patent's claims: it appears quite likely that the '431 patent's claims were written—at least in part—based on the '919 patent specification.

containing a microflow" (1, 10); "partition"; (7 (disclaimed), 16, 19); "bandwidth allocation" (7 (disclaimed), 16); "data rate" or "data rate value" (2-5 (disclaimed), 11-14); "classification structure" or "microflow classification structure"; (19-29); "packet discard time substructure" (19-22, 24); "weighting factor substructure" (19, 21, 22, 25, 26); or "delay variation substructure" (19, 21, 27). *See generally* '431 patent.

SUMMARY OF ARGUMENT

The '431 patent lacks written description support. The inventions of independent claims 1, 10, and 19—as an integrated whole or even in pieces—are not found in the '431 patent's specification. But to satisfy the written description requirement, the claim's inventions as an “integrated whole” must be found in the specification such that a person of ordinary skill in the art would understand the patentee's possession of the invention. *E.g., Novozymes A/S v. DuPont Nutrition Biosciences APS*, 723 F.3d 1336, 1349 (Fed. Cir. 2013). Because of the drafting mistake, there is no evidence that the '431 patent inventor was in possession of the inventions of claims 1, 10, and 19; therefore, the '431 patent is invalid for lack of written description.

LEGAL STANDARDS

A. Summary Judgment Standard

Summary judgment is appropriate when there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a).

B. The Written Description Requirement

The written description requirement has its basis in 35 U.S.C. § 112 ¶ 1.⁴ In affirming a summary judgment of invalidity for lack of written description issued by this Court, the Federal Circuit recently laid out the applicable legal standard:

“The essence of the written description requirement is that a patent applicant, as part of the bargain with the public, must describe his or her invention so that the public will know what it is and that he or she has truly made the claimed invention.” *AbbVie Deutschland GmbH & Co. v. Janssen Biotech, Inc.*, 759 F.3d 1285, 1298 (Fed. Cir. 2014). “To satisfy the written description requirement, the applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention, and demonstrate that by disclosure in the specification

⁴ This motion assumes the '431 patent is governed by pre-AIA 35 U.S.C. § 112; however, as post-AIA 35 U.S.C. § 112(a) contains the same provision, the analysis would be the same under either statute.

of the patent.” *Centocor Ortho Biotech, Inc. v. Abbott Labs.*, 636 F.3d 1341, 1348 (Fed. Cir. 2011) (internal quotations omitted). While the written description requirement does not require that the specification recite the claimed invention in any particular way, pointing to an “amalgam of disclosures” from which an artisan could have created the claimed invention does not satisfy this requirement. *Novozymes A/S v. DuPont Nutrition Biosciences APS*, 723 F.3d 1336, 1349 (Fed. Cir. 2013); *accord Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1352 (Fed. Cir. 2010). Instead, the specification must present each claim as an “integrated whole.” *Novozymes*, 723 F.3d at 1349. Whether the written description adequately supports a patent claim is a question of fact.

Flash-Control, LLC v. Intel Corp., 2021 WL 2944592 at *3 (Fed. Cir. July 14, 2021). “The purpose of the ‘written description’ requirement is broader than to merely explain how to ‘make and use’; the applicant must also convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of *the invention*. The invention is, for purposes of the ‘written description’ inquiry, *whatever is now claimed*. *Vas-Cath*, 935 F.2d at 1563-64. Cloudflare must demonstrate by clear and convincing evidence that the patent is invalid for lack of written description. *ICU Med., Inc.*, 558 F.3d 1368, 1376 (Fed. Cir. 2009).

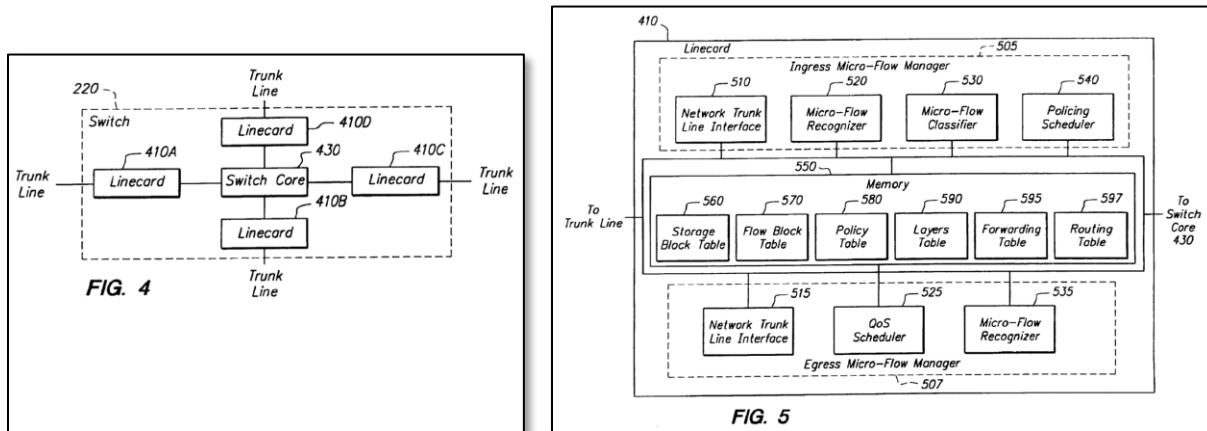
THE ’431 PATENT IS INVALID FOR LACK OF WRITTEN DESCRIPTION

A. The ’431 Patent Specification Does Not Support the Claims as a Whole.

For independent claims 1 and 10, there is no description in the specification of a method for managing data traffic that (in short) includes a buffer containing a microflow, determining a capacity of the buffer, assigning a threshold for the buffer capacity, delegating a portion of available bandwidth to the microflow, and using the buffer for damping jitter associated with the microflow. *See* ’431 patent at claims 1, 10. Treating the invention of claims 1 and 10 as a “whole,” the ’431 specification simply does not describe the invention. Min Dec. ¶¶ 51, 53; *see also Novozymes*, 723 F.3d at 1346, 1349 (the written description requirement must be satisfied “[t]aking the claims as a whole rather than as the sum of their individual limitations”). And similarly for

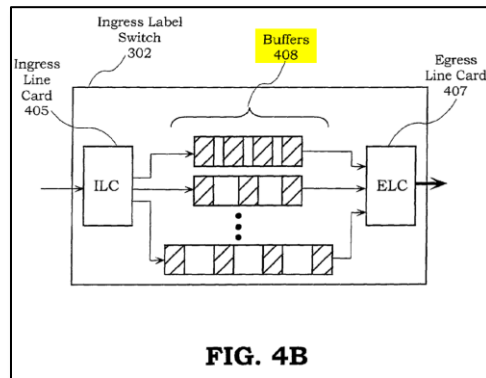
independent claim 19, there is no description in the specification of a microflow classification structure that (in short) includes packet-discard, weighting-factor, and delay-variation “substructure[s] configured to” each provide the respective claimed functionalities. ’431 patent at claim 19. The ’431 specification simply does not describe the invention of claim 19 as a “whole.” Min Dec. ¶ 55; *Novozymes*, 723 F.3d at 1346, 1349.

Completely missing from the ’431 specification is a description of each independent claim’s use of buffers, in a particular manner, to damp jitter. *E.g.*, ’431 patent at claim 1 (“using the buffer for damping jitter”), claim 10 (same), claim 19 (“provide a buffer value to dampen jitter”). Below are the diagrams the ’431 patent presents as “a micro-flow switch of an embodiment of the present invention” (fig. 4) and “a micro-flow linecard of an embodiment of the present invention” (fig. 5).



’431 patent at Figs. 4, 5; *id.* at 6:11-14. Neither of these figures show the claimed buffers, and there is no disclosure of the use of a buffer in the ’431 patent specification (to damp jitter or otherwise). Min Dec. ¶¶ 42-45.

In contrast, the *'919 patent* includes a figure showing *buffers* in a switch, namely “Buffers 408”:



'919 patent at Fig. 4B (highlight added).⁵ Similarly, the specification text of *the '919 patent* includes a description of *the use of buffers* in an embodiment (as reflected in *'919 patent* figure 4B):

FIG. 4B is a high level block diagram of an ingress label switch 302, in accordance with an embodiment of the present invention. The ingress label switch 302 includes an ingress line card 405, and egress line card 407 and a plurality of buffers 408. During operation, **micro-flows are placed into particular buffers 408** based on the assigned rate, which is based one [*sic*] QoS and a weighting factor (W).

More specifically, each buffer 408 is configured to allow data packet transmission at a particular rate. The ingress line card 405 determines a flow rate for a particular micro-flow based on a received RMI packet associated with each micro-flow. The **ingress line card 405 therefore sends the data packets of the micro-flow to the appropriate buffer 408**. Data packets from the micro-flow are then transmitted through the internal fabric of the ingress label switch 302. In one embodiment, **the buffers 408 are configured to stack up traffic and be controlled by a scheduler which enables the desired flow shaping**. In addition to shaping, policing is enforced by not allowing more than a particular rate for a particular micro-flow. In yet another embodiment, the traffic parameters that are used for the shaping and policing are the QoS parameters, such as, jitter, delay, packet burst size and bandwidth, for example.

⁵ It would be clear to a POSA that *'919 patent* Figure 4B (with its disclosure of “Buffers 408”) is intended to disclose subject matter that is *not* present in the *'431 patent* Figures 4 and 5. Min dec. ¶ 43. That is to say, the buffers of the *'919 patent*’s Figure 4B are not disclosed in the *'431 patent*’s figures. Min dec. ¶¶ 43-44.

'919 patent at 11:63-12:18 (emphasis added). The '431 patent specification does not contain the text disclosure of the '919 patent at 11:63-12:18 quoted above.

Cloudflare expects Sable to cobble together some argument that the claimed inventions are disclosed, but it is not enough for Sable to attempt to “derive written description support from an amalgam of disclosures plucked selectively from the [] application,” or to try to show the invention “would be obvious over what is expressly disclosed.” *Novozymes*, 723 F.3d at 1349; *Lockwood*, 107 F.3d at 1571-72. Rather, “[o]ne shows that one is ‘in possession’ of *the invention* by describing *the invention*, with all its claimed limitations, not that which makes it obvious.” *Lockwood*, 107 F.3d at 1572. But even if it were permissible to try to piece together an “amalgam of disclosures” to support the claims here (which it is not), Sable *cannot* do so here because nowhere does the '431 specification teach the inventions of claims 1, 10, and 19 as arranged and claimed. *Novozymes*, 723 F.3d at 1349. Accordingly, the '431 patent fails, as it does not disclose the invention of any of the independent claims as a whole and, *a fortiori*, fails to disclose their dependent claims.

B. The '431 Patent Specification Also Fails to Support Individual Limitations.

The '431 patent also fails to provide written description support for many individual claim limitations, including “determining a capacity of a buffer” and “assigning an acceptable threshold value for the capacity of the buffer” (part of independent claims 1 and 10 and incorporated into their dependent claims 8 and 11-18) and “using a buffer for damping jitter” or “provide a buffer value to dampen jitter” (all claims). These claims and the patent fail as a result.

As noted above, buffers are largely ignored by the '431 patent's specification. “Buffer” never appears in any of the figures, and only appears four times altogether in the specification text. Three of these references to a “buffer” come in the context of two paragraphs that criticize prior

art systems and say nothing about buffers in the invention.⁶ ’431 patent at 3:18-47. The fourth and final use of “buffer” is only related to the “packet discard time limit” limitation of dependent claims 8 and 17, not the “determining a capacity of a buffer” or “assigning an acceptable threshold value for the capacity of the buffer” limitations of independent claims 1 and 10.⁷ Min dec. ¶ 44.

Beyond the deficient discussion of “buffer” on its own, there is no specification support at all for “determining a capacity” of a buffer. Min dec. ¶¶ 44, 52, 54. For example, there is no disclosure in the specification regarding the capacity of a buffer, or of “determining” a capacity of a buffer. *Id.* Moreover, there is no specification support for “assigning an acceptable threshold value” for the capacity of a buffer, or of a “value” for buffer capacity, or of “assigning” a value for buffer capacity, or of an “acceptable threshold value” for buffer capacity. *Id.* Indeed, the word “threshold” never even appears in the specification.

Moreover, the specification lacks any disclosure as to the limitations “using a buffer for damping jitter” and “provide a buffer value to dampen jitter”—because the specification never discloses (or even references) “damping” or “dampen” at all, and there is no disclosure regarding what damping means for purposes of the invention, or the damping of jitter in an embodiment, or the use of a buffer to damp jitter in an embodiment. Min dec. ¶¶ 46-50, 52, 54. “Jitter” only appears

⁶ These two paragraphs of the specification describe and criticize a prior-art “network 100,” in which Internet applications “can quickly fill all of the buffers on a conventional network 100,” and “random early discards (“RED”), which are proportional to the buffer fill, can save the switch from becoming overloaded.” ’431 patent 3:18-47. The paragraphs then assert that “a conventional network 100 also cannot discard a packet associating with these data transmissions to ensure buffer space is available” for other sources. *Id.* This passing reference to prior-art buffers does not disclose “determining a capacity of a buffer” or “assigning an acceptable threshold value for the capacity of the buffer” as claimed. Min dec. ¶¶ 44-45.

⁷ For the fourth use of “buffer,” the specification recites: “The packet discard time limit (“D”) value 315 is used to ensure buffer availability within the switch 220.” ’431 patent at 9:45-46; *see generally id.* 9:45-57. This last use of “buffer” does not describe “determining a capacity of a buffer” or “assigning an acceptable threshold value for the capacity of the buffer” as claimed in independent claims 1 and 10. Min dec. ¶¶ 44-45.

three times in the specification text—all within a single paragraph. Each use of the term simply lists general characteristics of prior-art traffic types, namely “delay variation, jitter, and traffic loss.” ’431 patent 9:4-20; Min dec. ¶¶ 46-47. “Jitter” never appears in the figures at all, and the specification never discusses “jitter” in the context of any embodiment. Min dec. ¶ 48. The idea of a “buffer value” likewise never appears in the specification text or figures. Min dec. ¶ 49. Certainly, there is no disclosure of a “buffer value to dampen jitter.” *Id.*

And as noted above, “buffer” is generally absent from the specification—but even the one reference to “buffer” that is not discussing prior art does not address the subject matter of the “using a buffer for damping jitter” or the “delay variation substructure to provide a buffer value to dampen jitter” limitations. Min dec. ¶¶ 44-45.

And the specification never describes a “microflow classification structure” or any “substructures” *as such*, and never describes (at least) the “delay variation substructure configured to provide a buffer value to dampen jitter” claimed in claim 19. Min dec. ¶ 56. There is disclosure of a “delay variation (‘Q’) value,” and of a “QoS field 310” that includes the “Q” value. ’431 patent at 8:16-54, 10:40-47; *see also id.* at Fig. 3B. But there is no disclosure that the “Q” value is a “a buffer value to dampen jitter” or a “delay variation substructure configured to provide a buffer value to dampen jitter,” or any other disclosure describing this limitation of claim 19. Min dec. ¶¶ 50, 56.

Accordingly, because the ’431 specification does not sufficiently describe these claim limitations of the independent claims 1, 10, or 19, these claims and their dependents all fail, rendering the patent invalid in its entirety.

CONCLUSION

For the foregoing reasons, Cloudflare respectfully requests that the Court find U.S. Patent No. 6,954,431 invalid for lacking written description.

Dated: November 12, 2021

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the above and foregoing document has been served on all counsel of record via ECF on November 12, 2021.

/s/ C. Luke Nelson